SEQUENCE LISTING

<110>	Wang, Ti Lohuis, Kojima, Du, Feng Byatt, S	Michae Cheryl gxing	J.							
<120>	MARKER ASSISTED BEST LINEAR UNBIASED PREDICTION (MA-BLUP): SOFTWARE ADAPTIONS FOR PRACTICAL APPLICATIONS FOR LARGE BREEDING POPULATIONS IN FARM ANIMAL SPECIES									
<130>	11916.0065.00PC00									
<150> <151>										
<160>	3									
<170>	PatentIn version 3.3									
<210> <211> <212> <213>	11> 5888 12> DNA									
<220> <221> misc_feature <222> (1)(5888) <223> Sequence for AMPK gamma subunit										
<400> atgaget	1 :tcc taga	gcaagg	agagagccgt	tcatggccat	cccgagctgt	aaccaccagc	60			
tcagaaa	igaa gcca	tgggga	ccaggggaac	aaggcctcta	gatggacaag	gcaggaggat	120			
gtagagg	gaag gggg	gcctcc	gggcccgagg	gaaggtgagt	tcaaggccag	ttctggggag	180			
ctgggad	tgg gggc	agtggg	cagtcctcaa	acctggggcc	cgtctctggt	ctggtccctc	240			
cataaca	cag gcac	ataaca	tcatgcagcc	agtctcccca	caagggggag	gacaactgca	300			
ttgctga	ıtcc aggg	gtccag	ggatccaagg	tggccaactc	aggacagagc	cactgtcttc	360			
tctgtga	ictc tctg	agactc	agctctctca	cctgcaaaat	ggggccacag	cattcaggct	420			
tcccaaç	gtt gcaa	tgagga	tgaatggaga	cagcagatga	ggaagttctc	tggaagaggg	480			
agttact	gtg ctct	ccctcc	cgctccccga	acaggtcccc	agtccaggcc	agttgctgag	540			
tccacco	ggc agga	ggccac	attccccaag	gccacaccct	tggcccaagc	cgctcccttg	600			
gccgagg	tgg acaa	ccccc	aacagagcgg	gacatcctcc	cctctgactg	tgcagcctca	660			
gcctccc	act ccaa	cacaga	ccatctggat	ctgggcatag	agttctcagc	ctcggcggcg	720			
tcggggg	atg agct	tgggct	ggtggaagag	aagccagccc	cgtgcccatc	cccagaggtg	780			
ctgttac	cca ggct	gggctg	ggatgatgag	ctgcagaagc	cgggggccca	ggtctacatg	840			

1

900 cacttcatgc aggagcacac ctgctacgat gccatggcga ccagctccaa actggtcatc 960 ttcgacacca tgctggaggt gaggccacgc ctcagccccc cccatcctca cccccccca ggatgccttg ccagctctgc cccctccaa gccccttccc gaactccttc cggcatgaat 1020 ggagaccggg ggagggcttc tgctctctgc acgcacccct taattgtcat cccagctctg 1080 caactcagta tccagagata ggaatgcctg ctttagcctg cgaatttcag aggattcctg 1140 ggacaagcca ggcaatatat gaaagtcttt gcagggtggc ttaggacaaa gagcaaggga 1200 ctcttggtaa gagaaaaata ggatgagctc tgctccccac tcttccctta ggttaaacta 1260 tgaaacattt ggttccgtgc ttctcgctgt gtgcactatt tgattctagt ggaatatgaa 1320 caaatacatt tcatgtagta gctttgtatg ttataatatt agatatttta caatattaga 1380 aaattacagt cagcaggtgt agatagtctt gtttagggtg aggcccaaat aagtcaatgt 1440 aaaatttatt tagggaaaaa tattttgtaa atattataca cataatttca cctctagcac 1500 1560 ttaacaaaat cgatactatg tgtgtctgta cacttatgac tttggagtag aaacactggg 1620 ttggtttccc acaccttgga gtgcttgggg aggggtcacc tcagtacctc tggccaccag cageettaga tetggaacaa atgtgeagae aaggateteg tggagggeat geeaggaegt 1680 1740 gggagaggca gacagcaggc tcatgtagag gcaggcccgg gaggcgcccg gtggaagaac 1800 cctggctggc aggggacete tgaggcgcag ggaacgatte acceteaact gtteteteeg 1860 gcgctcagat caagaaggcc ttctttgccc tggtggccaa cggcgtccga gcggcacctt 1920 tgtgggacag caagaagcag agcttcgtgg gtgaggaggg gctggggagg cagaggtggt ggggaaggga atagggggac cttgtggggt gattctaggg ccgagctctg acacaccaca 1980 ggcttcaacc aagcaggggc ctggcctgga gaggggggga gcatttgacc ccggtctcct 2040 2100 ggtggccagc tgggagatct caactgtagg agagctgtga ccagctgacc cctccagctc 2160 tactacccca aggtccctgt cgcaggtgct aagtaagaag aggacaggcg gaggaaggaa 2220 gtcagaaaat agaagaagca gggcaggaag gagagaaatg acaggggaag cataagaggg acaaccccat ttgtcaggca cgggagggc tgccctcctg tcctcttttg gccaccctca 2280 2340 gtaaaaggat gtgggcaggg tggggggagg ggcccgggct gacccccatt gctcccctcg ccccacaggg atgctgacca tcacagactt catcttggtg ctgcaccgct attacaggtc 2400 cccctggtg aggagtggtc tgggggtcct ggaacaccca tctgggctgg ggtggaagga 2460 2520 gttcagggga ccctcgcctg actttgggag ttccgttgct gtctttaggt ccagatctac gagattgaag aacataagat tgagacctgg aggggtgagc aggcgagggg acgggcgaag 2580 gggctgaggg tgtgtgggtg aggatggggc caaggacctc agggagagca tgcgcagtgg 2640 aggtttcctg gaggaagcgg gaggagggtg atcgggagcc caggggatct aagggaggga 2700

2760 gacagtotgg gggtggccac gtgaggcggg gtggtcggcc cctttgtgct gattctggct 2820 tttcctgcag agatctacct tcaaggctgc ttcaagcctc tggtctccat ctctcccaat 2880 gacaggtgag cttccccagc cgcccactcg agcctccttg ccccgcacag accccttctc 2940 cageteateg gttetaaget catggaetea tegteegtgg actgeagatg eggeagettt 3000 gacaccctgt cctctctcc aggggggctg ggatgaaggg gctctctttc cagactgccc caggeteact geteceacet ceacageetg ttegaagetg tetacgeeet cateaagaac 3060 3120 cggatccacc gcctgccggt cctggaccct gtctccgggg ctgtgctcca catcctcaca cataagcggc ttctcaagtt cctgcacatc tttgtgagcc tgggcacagc ctcagggaca 3180 acctgagtgg ctgagaagtc ttcagcccta gggatggggg agggagtagc tgggagcccc 3240 ctgagggcta ctccctcctg gcctcacctg tcccaaccca accagggcac cctgctgccc 3300 3360 eggeceteet tectetaceg caccatecaa gatttgggea teggeacatt eegagaettg 3420 gccgtggtgc tggaaacggc gcccatcctg accgcactgg acatcttcgt ggaccggcgt gtgtctgcgc tgcctgtggt caacgaaact ggtacctatg cccaggatgg gggctctggc 3480 3540 tgtgatggga ctgcgggggg gcaggggtct aggtggcatc aacttggggt ccagcatgga 3600 gtcagggcta gcagtctctg ccttctttga gctttggacc agttgcttag cctctctgag ccagacctca agttcttcct ctgaaaaaga cttaaaggaa ccatggctgc acactgtttc 3660 aaggttaaat tcaccataaa gaagccagat atcgagaagt attttaattt atgtttgatt 3720 3780 atgaaacatt tecaatgtet gaacatggea gaaaaaaeta taatgaaeee caegtateea 3840 3900 aagtaattta aaggaaatta tattatagaa ttatgtcatt tcaccccggg acacttcatc tgcctctctt aaaataaggg tacttcctat atcaccttac aattatgaat aatttattaa 3960 tgctatctaa tatccaatcc taattctcat ttctccattt tccccaagaa tatcttttt 4020 4080 ttttttaaca gttgatttgt tgagaccaag atccaatcaa ggtccatgtt tcgcatttgc ttcttttttc ccttaagcct cttttaatct agaacagttc cctccttgct ttattttcgt 4140 gacaccggtg atgagaagct gggtcagttg tcctgtagaa tgtcacactt tgagagattt 4200 gcctgttagc tttccacagg tagcccttat tttttttctc tattcctgcg tttcctgtga 4260 4320 ccgggaaatt agctctaaag gctggatcag attcaggcta gacatttgaa cctagaatat 4380 ttcagaggtg atgccatgta ctcctgtctc atcatattag gaggcatgac ggcaggtgtg tctctctgtg tgatgctatt tgatctgtgg gctcaggtgc tggccgtctg atgcctcact 4440 4500

4560 teannatect ggntetgace caaacetete ecetgtettt eteacacett ectecetgee cctcccatcc cccacaggac aggtagtggg cctctactct cgctttgatg tgatcgtaag 4620 4680 tatctatggg gaacggaggg gacctggggg accacaggga ggctgtggtg tgaagatgga tggaggttgg tatctgtgga ccagggaggc ctttacagtg tatatagaga gattatttgt 4740 4800 gggactggag cctggccgag ggctaagaat ggtcccccct ccctgcccag cacctggctg cccaacaac atacaaccac ctggacatga atgtgggaga agccctgagg cagcggacac 4860 tgtgtctgga aggcgtcctt tcctgccagc cccacgagac cttgggggaa gtcattgacc 4920 4980 ggattgtccg ggaacaggta ccccagcccc ttcatgcctg ctcccaacat gtagggcccc gtcctcctcg tgagcagctc cagctagccc atccaccggg cacctgtccg gccccccat 5040 cccccattct catggccaag ctcatggtgt ccatattggc cagtgactgg tcctattatc 5100 5160 ggggccctca gggcaagggc cacagccagc tgatcaccca gggtggtcac agccacccgt 5220 aagcagtttc taggagaccc tctgaggcac ccccagttag gttaagttgt tgcccctgat totcagtgcc aacctcattg gccgccatag ccgcatggca ctgccccctc actgagcctc 5280 tgtgggccca caggtgcacc gcctggtgct cgtggatgag acccagcacc ttctgggcgt 5340 5400 ggtgtccctc tctgacatcc ttcaggctct ggtgctcagc cctgctggaa ttgatgccct cggggcctga gaaccttgga acctttgctc tcaggccacc tggcacacct ggaagccagt 5460 gaagggagec gtggaeteag eteteaette eecteagece eaettgetgg tetggetett 5520 5580 gttcaggtag gctccgcccg gggcccctgg cctcagcatc agcccctcag tctccctggg 5640 cacccagatc tcagactggg gcaccctgaa gatgggagtg gcccagctta tagctgagca 5700 gccttgtgaa atctaccagc atcaagactc actgtgggac cactgctttg tcccattctc 5760 agctgaaatg atggagggcc tcataagagg ggtggacagg gcctggagta gaggccagat 5820 cagtgacgtg cettcaggac etceggggag ttagagetge cetetetcag tteagtteee 5880 ccctgctgag aatgtccctg gaaggaagcc agttaataaa ccttggttgg atggaatttc 5888 cacactcg

```
<210> 2
<211> 421
<212> DNA
```

. . .

```
<220>
<221> misc_feature
<222> (1)..(421)
<223> Partial sequence for Porcine Leptin Receptor gene
<400> 2
```

<213> Sus scrofa

tagatacttc ctatttatgt cttagtcaaa atgattaatt gcttttctat gtgtctttta 120 aatgtcctaa cagaatttat ttatgtgata actgcatttg acttggcata tccaattact 180 ccttggaaat ttaagttgtc ttgcatgcca ccaaatacaa catatgactt cctcttgcct 240 gctggaatct caaagaacac ttcaactttg aatggacatg atgaggcagt tgttgaaayg 300 gaacttaatw yaagtggtac ctacttatca aacttatctt ctaaaacaac tttccactgt 360 tgcttttgga gtgaggaaga taaaaactgc tctgtacatg cagacaacat tgcagggaag 420 g									
aatgtcctaa cagaatttat ttatgtgata actgcatttg acttggcata tccaattact ccttggaaat ttaagttgtc ttgcatgcca ccaaatacaa catatgactt cctcttgcct gctggaatct caaagaacac ttcaactttg aatggacatg atgaggcagt tgttgaaayg gaacttaatw yaagtggtac ctacttatca aacttatctt ctaaaacaac tttccactgt tgcttttgga gtgaggaaga taaaaactgc tctgtacatg cagacaacat tgcagggaag g 420	ğ	cactg	tttg	agcacttgga	aagttaaata	attattgttg	gagactgcat	gttttaatct	60
ccttggaaat ttaagttgtc ttgcatgcca ccaaatacaa catatgactt cctcttgcct 240 gctggaatct caaagaacac ttcaactttg aatggacatg atgaggcagt tgttgaaayg 300 gaacttaatw yaagtggtac ctacttatca aacttatctt ctaaaacaac tttccactgt 360 tgcttttgga gtgaggaaga taaaaactgc tctgtacatg cagacaacat tgcagggaag 420 g	t	agata	cttc	ctatttatgt	cttagtcaaa	atgattaatt	gcttttctat	gtgtctttta	120
gctggaatct caaagaacac ttcaactttg aatggacatg atgaggcagt tgttgaaayg 300 gaacttaatw yaagtggtac ctacttatca aacttatctt ctaaaacaac tttccactgt 360 tgcttttgga gtgaggaaga taaaaactgc tctgtacatg cagacaacat tgcagggaag 420 g	a	atgtc	ctaa	cagaatttat	ttatgtgata	actgcatttg	acttggcata	tccaattact	180
gaacttaatw yaagtggtac ctacttatca aacttatctt ctaaaacaac tttccactgt 360 tgcttttgga gtgaggaaga taaaaactgc tctgtacatg cagacaacat tgcagggaag 420 g 421	c	cttgga	aaat	ttaagttgtc	ttgcatgcca	ccaaatacaa	catatgactt	cctcttgcct	240
tgcttttgga gtgaggaaga taaaaactgc tctgtacatg cagacaacat tgcagggaag 420 g 421	Ğ	ctggaa	atct	caaagaacac	ttcaactttg	aatggacatg	atgaggcagt	tgttgaaayg	300
g 421	ç	gaactta	aatw	yaagtggtac	ctacttatca	aacttatctt	ctaaaacaac	tttccactgt	360
	t	gcttt	tgga	gtgaggaaga	taaaaactgc	tctgtacatg	cagacaacat	tgcagggaag	420
	ç	ſ							421
<210> 3	<	210>	3						

- <210> 3 <211> 96 <212> PRT
- <213> Sus scrofa
- <220>
- <221> MISC FEATURE
- <222> (56)..(56)
- <223> Xaa = Met or Thr
- <220>
- <221> MISC_FEATURE
- <222> (60)..(60)
- <223> Xaa = Ser or Ile
- <400> 3
- Glu Phe Ile Tyr Val Ile Thr Ala Phe Asp Leu Ala Tyr Pro Ile Thr 1 $$ 5 $$ 10 $$ 15
- Pro Trp Lys Phe Lys Leu Ser Cys Met Pro Pro Asn Thr Thr Tyr Asp
 20 25 30
- Phe Leu Pro Ala Gly Ile Ser Lys Asn Thr Ser Thr Leu Asn Gly 35 40 45
- His Asp Glu Ala Val Val Glu Xaa Glu Leu Asn Xaa Ser Gly Thr Tyr 50 60
- Leu Ser Asn Leu Ser Ser Lys Thr Thr Phe His Cys Cys Phe Trp Ser 70 75 80
- Glu Glu Asp Lys Asn Cys Ser Val His Ala Asp Asn Ile Ala Gly Lys 85 90 95